

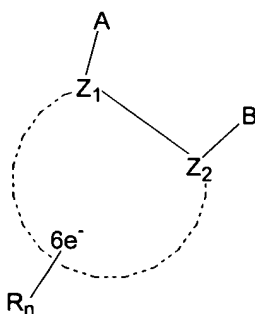
## AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

### Listing of Claims:

1 – 102. (canceled)

103. (currently amended) A method of increasing the vigor and/or the yield of an agronomic plant that is a legume comprising treating the plant or its propagation material with a composition which comprises an effective amount of a fungicide having the formula



wherein  $Z_1$  and  $Z_2$  are C ~~or N~~ and are part of an aromatic ring selected from benzene, ~~pyridine~~, thiophene, furan, ~~pyrrole~~, ~~pyrazole~~, ~~thiazole~~, and benzothiophene ~~and isothiazole~~;

A is selected from  $--C(X)\text{-amine}$ ,  $--C(O)\text{---}SR_3$ ,  $--NH\text{---}C(X)R_4$ , and  $--C(=NR_3)\text{---}XR_7$ ;

B is  $--W_m\text{---}Q(R_2)_3$  or selected from o-tolyl, 1-naphthyl, 2-naphthyl, and 9-phenanthryl, each optionally substituted with halogen or  $R_4$ ;

Q is C, or Si, ~~Ge~~, ~~or~~ Sn;

W is  $--C(R_3)_p\ H_{(2-p)}\text{---}$ ; or when Q is C, W is selected from  $--C(R_3)_p\ H_{(2-p)}\text{---}$ ,  $--N(R_3)_m\ H_{(1-m)}\text{---}$ ,  $--S(O)_p\text{---}$ , and  $--O\text{---}$ ;

X is O or S;

n is 0, 1, 2, or 3;

m is 0 or 1;

p is 0, 1, or 2;

each R is independently selected from

a) halo, formyl, cyano, amino, nitro, thiocyanato, isothiocyanato, trimethylsilyl, and hydroxy;

b) C<sub>1</sub>-C<sub>4</sub> alkyl, alkenyl, alkynyl, C<sub>3</sub>-C<sub>6</sub> cycloalkyl, and cycloalkenyl, each optionally substituted with halo, hydroxy, thio, amino, nitro, cyano, formyl, phenyl, C<sub>1</sub>-C<sub>4</sub> alkoxy, alkylcarbonyl, alkylthio, alkylamino, dialkylamino, alkoxycarbonyl, (alkylthio)carbonyl, alkylaminocarbonyl, dialkylaminocarbonyl, alkylsulfinyl, or alkylsulfonyl;

c) phenyl, furyl, thienyl, pyrrolyl, each optionally substituted with halo, formyl, cyano, amino, nitro, C<sub>1</sub>-C<sub>4</sub> alkyl, alkenyl, alkynyl, alkoxy, alkylthio, alkylamino, dialkylamino, haloalkyl, and haloalkenyl;

d) C<sub>1</sub>-C<sub>4</sub> alkoxy, alkenoxy, alkynoxy, C<sub>3</sub>-C<sub>6</sub> cycloalkyloxy, cycloalkenyloxy, alkylthio, alkylsulfinyl, alkylsulfonyl, alkylamino, dialkylamino, alkylcarbonylamino, aminocarbonyl, alkylaminocarbonyl, dialkylaminocarbonyl, alkylcarbonyl, alkylcarbonyloxy, alkoxycarbonyl, (alkylthio)carbonyl, phenylcarbonylamino, phenylamino, each optionally substituted with halo;

wherein two R groups may be combined to form a fused ring;

each R<sub>2</sub> is independently selected from alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl and phenyl, each optionally substituted with R<sub>4</sub> or halogen; and wherein, when Q is C, R<sub>2</sub> may also be selected from halo, alkoxy, alkylthio, alkylamino, and dialkylamino;

wherein two R<sub>2</sub> groups may be combined to form a cyclo group with Q;

R<sub>3</sub> is C<sub>1</sub>-C<sub>4</sub> alkyl;

R<sub>4</sub> is C<sub>1</sub>-C<sub>4</sub> alkyl, haloalkyl, alkoxy, alkylthio, alkylamino, or dialkylamino;

R<sub>7</sub> is C<sub>1</sub>-C<sub>4</sub> alkyl, haloalkyl, or phenyl, optionally substituted with halo, nitro, or R<sub>4</sub>;

or an agronomic salt thereof, wherein the fungicide has no significant activity against fungal plant pathogens for such agronomic plant, wherein the plant or its propagation material possesses a transgenic event providing the plant with resistance to a herbicide and the treatment comprises foliar application of said herbicide.

104. (previously presented)      The method according to claim 103, wherein the herbicide resistance is selected from the group consisting of resistance to glyphosate, glufosinate, imidazolinone herbicides, and sulfonylurea herbicides.

105. (canceled)

106. (previously presented)      The method according to claim 103, wherein the fungicide is 4,5-dimethyl-*N*-2-propenyl-2-(trimethylsilyl)-3-thiophenecarboxamide.

107. (canceled)

108. (previously presented)      The method according to claim 103, wherein the plant or its propagation material possesses a transgenic event providing the plant with resistance to a herbicide selected from the group consisting of glyphosate, glufosinate, imidazolinone herbicides, and sulfonylurea herbicides, and wherein the treatment comprises treating the seed of the plant with an inoculant selected from the group consisting of *Azospirillum spp.*, *Rhizobium spp.*, *Bradyrhizobium spp.*, a mixture of *Rhizobium spp.* and *Bradyrhizobium spp.*, and a mixture of either *Rhizobium spp.*, or *Bradyrhizobium spp.* with any other microorganisms, and further includes foliar treatment of the plant with the fungicide, and foliar application of said herbicide.

109. (previously presented)      The method according to claim 103, wherein the step of treating the plant or its propagation material comprises applying the fungicide to the foliage of the plant in combination with said herbicide.

110. (previously presented)      The method according to claim 109, wherein the herbicide is glyphosate.

111. (canceled)

112. (previously presented) The method according to claim 109, wherein the fungicide is 4,5-dimethyl-*N*-2-propenyl-2-(trimethylsilyl)-3-thiophenecarboxamide.

113. – 116. (canceled)

117. (currently amended) The method according to claim 103 ~~claim 113~~, where the treatment of the plant or its propagation material comprises treatment of a seed with an inoculant comprising *Azospirillum spp.*, or *Rhizobium spp.*, or *Bradyrhizobium spp.*, or a mixture of *Rhizobium spp.* and *Bradyrhizobium spp.*, or a mixture of either *Rhizobium spp.*, or *Bradyrhizobium spp.* with any other microorganisms.

118 - 133. (canceled)

134. (currently amended) The method according to claim 103, wherein  $Z_1$  and  $Z_2$  are C and are part of an aromatic ring which is thiophene;  
A is selected from --C(X)-amine, --C(O)SR<sub>3</sub>, --NH--C(X)R<sub>4</sub>, and --C(=NR<sub>3</sub>)--XR<sub>7</sub>;

B is --W<sub>m</sub>--Q(R<sub>2</sub>)<sub>3</sub> or selected from o-tolyl, 1-naphthyl, 2-naphthyl, and 9-phenanthryl, each optionally substituted with halogen or R<sub>4</sub>;

Q is C, or Si, ~~Ge, or Sn~~;

W is --C(R<sub>3</sub>)<sub>p</sub> H<sub>(2-p)</sub>--; or when Q is C, W is selected from --C(R<sub>3</sub>)<sub>p</sub> H<sub>(2-p)</sub>--, --N(R<sub>3</sub>)<sub>m</sub> H<sub>(1-m)</sub>--, --S(O)<sub>p</sub>--, and --O--;

X is O or S;

n is 0, 1, 2, or 3;

m is 0 or 1;

p is 0, 1, or 2;

each R is independently selected from

a) halo, formyl, cyano, amino, nitro, thiocyanato, isothiocyanato, trimethylsilyl, and hydroxy;

b) C<sub>1</sub>-C<sub>4</sub> alkyl, alkenyl, alkynyl, C<sub>3</sub>-C<sub>6</sub> cycloalkyl, and cycloalkenyl, each optionally substituted with halo, hydroxy, thio, amino, nitro, cyano, formyl, phenyl, C<sub>1</sub>-C<sub>4</sub> alkoxy,

alkylcarbonyl, alkylthio, alkylamino, dialkylamino, alkoxycarbonyl, (alkylthio)carbonyl, alkylaminocarbonyl, dialkylaminocarbonyl, alkylsulfinyl, or alkylsulfonyl;

c) phenyl, furyl, thienyl, pyrrolyl, each optionally substituted with halo, formyl, cyano, amino, nitro, C<sub>1</sub>-C<sub>4</sub> alkyl, alkenyl, alkynyl, alkoxy, alkylthio, alkylamino, dialkylamino, haloalkyl, and haloalkenyl;

d) C<sub>1</sub>-C<sub>4</sub> alkoxy, alkenoxy, alkynoxy, C<sub>3</sub>-C<sub>6</sub> cycloalkyloxy, cycloalkenyloxy, alkylthio, alkylsulfinyl, alkylsulfonyl, alkylamino, dialkylamino, alkylcarbonylamino, aminocarbonyl, alkylaminocarbonyl, dialkylaminocarbonyl, alkylcarbonyl, alkylcarbonyloxy, alkoxycarbonyl, (alkylthio)carbonyl, phenylcarbonylamino, phenylamino, each optionally substituted with halo;

each R<sub>2</sub> is independently selected from alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl and phenyl, each optionally substituted with R<sub>4</sub> or halogen; and wherein, when Q is C, R<sub>2</sub> may also be selected from halo, alkoxy, alkylthio, alkylamino, and dialkylamino, and further when Q is C, R<sub>2</sub> may also be selected from halo, alkoxy, alkylthio, alkylamino, and dialkylamino; and further when Q is C, then two R<sub>2</sub> groups may be combined to form a cycloalkyl group with Q;

R<sub>3</sub> is C<sub>1</sub>-C<sub>4</sub> alkyl;

R<sub>4</sub> is C<sub>1</sub>-C<sub>4</sub> alkyl, haloalkyl, alkoxy, alkylthio, alkylamino, or dialkylamino; R<sub>7</sub> is C<sub>1</sub>-C<sub>4</sub> alkyl, haloalkyl, or phenyl, optionally substituted with halo, nitro, or R<sub>4</sub> ;  
or an agronomic salt thereof.

135. (currently amended) The method according to claim 103, wherein

Z<sub>1</sub> and Z<sub>2</sub> are C and are part of an aromatic ring which is thiophene;

A is selected from --C(X)-amine, wherein the amine is substituted with a first and a second amine substituent or with an alkylaminocarbonyl and a hydrogen, --C(O)--SR<sub>3</sub>, --NH--C(X)R<sub>4</sub>, and --C(=NR<sub>3</sub>)-XR<sub>7</sub> ;

the first amine substituent is selected from the group consisting of C<sub>1</sub> - C<sub>10</sub> straight or branched alkyl, alkenyl, or alkynyl groups or mixtures thereof optionally substituted with one or more halogen, hydroxy, alkoxy, alkylthio, nitrile, alkylsulfonate, haloalkylsulfonate, phenyl, C<sub>3</sub> - C<sub>6</sub> cycloalkyl and C<sub>5</sub> - C<sub>6</sub> cycloalkylkenyl; phenyl optionally substituted with one or more C<sub>1</sub> - C<sub>4</sub> straight or branched alkyl, alkenyl, or

alkynyl groups or mixtures thereof, cycloalkyl, cycloalkenyl, haloalkyl, alkoxy and nitro; C<sub>3</sub> - C<sub>6</sub> cycloalkyl, C<sub>5</sub> - C<sub>6</sub> cycloalkenyl, alkoxy, alkenoxy, alkynoxy, dialkylamino, and alkylthio;

and the second amine substituent is selected from the group consisting of hydrogen; C<sub>1</sub> - C<sub>6</sub> straight or branched alkyl, alkenyl, or alkynyl groups or mixtures thereof optionally substituted with one or more halogen, hydroxy, alkylcarbonyl, haloalkylcarbonyl, alkoxycarbonyl, and dialkylphosphonyl;

B is --W<sub>m</sub> --Q(R<sub>2</sub>)<sub>3</sub> or selected from o-tolyl, 1-naphthyl, 2-naphthyl, and 9-phenanthryl, each optionally substituted with halogen or R<sub>4</sub> ;

Q is C, or Si, ~~Ge~~, ~~or~~ Sn;

W is --C(R<sub>3</sub>)<sub>p</sub> H<sub>(2-p)</sub> --; or when Q is C, W is selected from --C(R<sub>3</sub>)<sub>p</sub> H<sub>(2-p)</sub> --, --N(R<sub>3</sub>)<sub>m</sub> H<sub>(1-m)</sub> --, --S(O)<sub>p</sub> --, and --O--;

X is O or S;

n is 2;

m is 0 or 1;

p is 0, 1, or 2;

wherein two R groups are combined to form a nonheterocyclic ring fused with the thiophene ring, which is not a benzothiophene other than a tetrahydrobenzothiophene, said two R groups being selected from the group consisting of C<sub>1</sub> - C<sub>4</sub> alkyl, alkenyl, C<sub>3</sub> - C<sub>6</sub> cycloalkyl and cycloalkenyl, each optionally substituted with hydroxy, thio, phenyl, C<sub>1</sub> - C<sub>4</sub> alkoxy, alkylthio, alkylsulfinyl, or alkylsufonyl;

each R<sub>2</sub> is independently selected from alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl and phenyl, each optionally substituted with R<sub>4</sub> or halogen; and wherein when Q is C, R<sub>2</sub> may also be selected from halo, alkoxy, alkylthio, alkylamino, and dialkylamino; and further when Q is C, then two R<sub>2</sub> groups may be combined to form a cycloalkyl group with Q;

R<sub>3</sub> is C<sub>1</sub>-C<sub>4</sub> alkyl;

R<sub>4</sub> is C<sub>1</sub>-C<sub>4</sub> alkyl, haloalkyl, alkoxy, alkylthio, alkylamino, or dialkylamino; and

R<sub>7</sub> is C<sub>1</sub>-C<sub>4</sub> alkyl, haloalkyl, or phenyl, optionally substituted with halo, nitro, or R<sub>4</sub>; or an agronomic salt thereof

136. (previously presented) The method according to claim 103, wherein  $Z_1$  and  $Z_2$  are C and are part of an aromatic ring which is thiophene;

A is  $--C(X)-$ amine wherein the amine is an N-bonded heterocyclic compound chosen from the group consisting of morpholine, piperazine, piperidine, and pyrrolidine, each optionally substituted with  $C_3 - C_6$  alkyl groups;

B is  $--W_m --Q(R_2)_3$  or selected from o-tolyl, 1-naphthyl, 2-naphthyl, and 9-phenanthryl, each optionally substituted with halogen or  $R_4$  ;

Q is C or Si;

W is  $--C(R_3)_p H_{(2-p)} --$ ; or when Q is C, W is selected from  $--C(R_3)_p H_{(2-p)} --$ ,  $--N(R_3)_m H_{(1-m)} --$ ,  $--S(O)_p --$ , and  $--O--$ ;

X is O;

n is 2;

m is 0 or 1;

p is 0, 1, or 2;

wherein the two R groups are alkenyl groups and are combined to form a fused ring with the thiophene ring with is benzothiophene; wherein the alkenyl groups are optionally substituted with halo, hydroxy, thio, amino, nitro, cyano, formyl, phenyl,  $C_2 - C_4$  alkoxy, alkylcarbonyl, alkylthio, alkylamino, dialkylamino, alkoxycarbonyl, (alkylthio)carbonyl, alkylaminocarbonyl, dialkylaminocarbonyl, alkylsulfinyl, or alkylsulfonyl;

each  $R_2$  is independently selected from alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, and phenyl, each optionally substituted with  $R_4$  or halogen; and wherein when Q is C,  $R_2$  may also be selected from halo, alkoxy, alkylthio, alkylamino, and dialkylamino; or wherein two  $R_2$  groups may be combined to form a cyclo group with Q;

$R_3$  is  $C_1-C_4$  alkyl; and

$R_4$  is  $C_1-C_4$  alkyl, haloalkyl, alkoxy, alkylthio, alkylamino, or dialkylamino; or an agronomic salt thereof

137. (previously presented) The method according to claim 103, wherein  $Z_1$  and  $Z_2$  are C and are part of a thiophene ring.

138. (previously presented) The method according to claim 137, wherein A is -C(O)-amine, wherein the amino radical is substituted with one or two groups selected from hydrogen; hydroxy; alkyl, alkenyl, and alkynyl, which may be straight or branched chain or cyclic; alkoxyalkyl; haloalkyl; hydroxyalkyl; alkylthio; alkylthioalkyl; alkylcarbonyl; alkoxycarbonyl; aminocarbonyl; alkylaminocarbonyl; cyanoalkyl; mono- or dialkylamino; phenyl, phenylalkyl or phenylalkenyl, each optionally substituted with one or more C<sub>1</sub> - C<sub>4</sub> alkyl, alkoxy, haloalkyl, C<sub>3</sub> - C<sub>6</sub> cycloalkyl, halo, or nitro groups; and C<sub>1</sub> - C<sub>4</sub> alkyl or alkenyl substituted with pyrimidinyl, thienyl, or furanyl; and wherein the amino radical may be a N-bonded heterocycle selected from morpholine, piperazine, piperidine, pyrrole, pyrrolidine, imidazole, and triazoles, each optionally substituted with C<sub>1</sub> - C<sub>6</sub> alkyl groups.

139. (previously presented) The method according to claim 138, wherein in -W<sub>m</sub><sup>-</sup>, m is 0.

140. (previously presented) The method according to claim 139, wherein Q is Si.

141. (previously presented) The method according to claim 140, wherein each R<sub>2</sub> is C<sub>1</sub> - C<sub>4</sub> alkyl or haloalkyl.

142. (previously presented) The method according to claim 141, wherein each R<sub>2</sub> is methyl.

143. (previously presented) The method according to claim 142, wherein A is alkylaminocarbonyl or dialkylaminocarbonyl.

144. (currently amended) The method according to claim 103, wherein Z<sub>1</sub> and Z<sub>2</sub> are C and are part of an aromatic ring which is benzothiophene; and



A is selected from --C(X)-amine wherein the amine is an unsubstituted, monosubstituted or disubstituted nonheterocyclic amino radical, --C(O)—SR<sub>3</sub>, --NH--C(X)R<sub>4</sub>, and --C(=NR<sub>3</sub>)--XR<sub>7</sub> ;

B is --W<sub>m</sub> --Q(R<sub>2</sub>)<sub>3</sub> or selected from o-tolyl, 1-naphthyl, 2-naphthyl, and 9-phenanthryl, each optionally substituted with halogen or R<sub>4</sub> ;

Q is C, or Si, ~~Ge~~, ~~or~~ Sn;

W is --C(R<sub>3</sub>)<sub>p</sub> H<sub>(2-p)</sub> --; or when Q is C, W is selected from --C(R<sub>3</sub>)<sub>p</sub> H<sub>(2-p)</sub> --, --N(R<sub>3</sub>)<sub>m</sub> H<sub>(1-m)</sub> --, --S(O)<sub>p</sub> --, and --O--;

X is O or S;

n is 0, 1, 2, or 3;

m is 0 or 1;

p is 0, 1, or 2;

each R is independently selected from

a) halo, formyl, cyano, amino, nitro, thiocyanato, isothiocyanato, trimethylsilyl, and hydroxy;

b) C<sub>1</sub>-C<sub>4</sub> alkyl, alkenyl, alkynyl, C<sub>3</sub>-C<sub>6</sub> cycloalkyl, and cycloalkenyl, each optionally substituted with halo, hydroxy, thio, amino, nitro, cyano, formyl, phenyl, C<sub>1</sub>-C<sub>4</sub> alkoxy, alkylcarbonyl, alkylthio, alkylamino, dialkylamino, alkoxycarbonyl, (alkylthio)carbonyl, alkylaminocarbonyl, dialkylaminocarbonyl, alkylsulfinyl, or alkylsulfonyl;

c) phenyl, furyl, thienyl, pyrrolyl, each optionally substituted with halo, formyl, cyano, amino, nitro, C<sub>1</sub>-C<sub>4</sub> alkyl, alkenyl, alkynyl, alkoxy, alkylthio, alkylamino, dialkylamino, haloalkyl, and haloalkenyl;

d) C<sub>1</sub>-C<sub>4</sub> alkoxy, alkenoxy, alkynoxy, C<sub>3</sub>-C<sub>6</sub> cycloalkyloxy, cycloalkenyloxy, alkylthio, alkylsulfinyl, alkylsulfonyl, alkylamino, dialkylamino, alkylcarbonylamino, aminocarbonyl, alkylaminocarbonyl, dialkylaminocarbonyl, alkylcarbonyl, alkylcarbonyloxy, alkoxycarbonyl, (alkylthio)carbonyl, phenylcarbonylamino, phenylamino, each optionally substituted with halo;

each R<sub>2</sub> is independently selected from alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl and phenyl, each optionally substituted with R<sub>4</sub> or halogen; and wherein, when Q is C, R<sub>2</sub> may also be selected from halo, alkoxy, alkylthio, alkylamino, and dialkylamino;

wherein two R<sub>2</sub> groups may be combined to form a cyclo group with Q which is 1-methylcyclopropyl, 1-methylcyclopentyl, or 1-methylcyclohexyl;

R<sub>3</sub> is C<sub>1</sub>-C<sub>4</sub> alkyl;

R<sub>4</sub> is C<sub>1</sub>-C<sub>4</sub> alkyl, haloalkyl, alkoxy, alkylthio, alkylamino, or dialkylamino; and

R<sub>7</sub> is C<sub>1</sub>-C<sub>4</sub> alkyl, haloalkyl, or phenyl, optionally substituted with halo, nitro, or R<sub>4</sub>; or an agronomic salt thereof

145. (currently amended) The method according to claim 103, wherein Z<sub>1</sub> and Z<sub>2</sub> are C and are part of an aromatic ring which is benzothiophene; and A is selected from --C(X)-amine wherein the amine is an unsubstituted, monosubstituted or disubstituted nonheterocyclic amino radical, --C(O)—SR<sub>3</sub>, --NH--C(X)R<sub>4</sub>, and --C(=NR<sub>3</sub>)--XR<sub>7</sub>;

B is --W<sub>m</sub> --Q(R<sub>2</sub>)<sub>3</sub> or selected from o-tolyl, 1-naphthyl, 2-naphthyl, and 9-phenanthryl, each optionally substituted with halogen or R<sub>4</sub>;

Q is C, or Si, ~~Ge, or Sn~~;

W is --C(R<sub>3</sub>)<sub>p</sub> H<sub>(2-p)</sub> --; or when Q is C, W is selected from --C(R<sub>3</sub>)<sub>p</sub> H<sub>(2-p)</sub> --, --N(R<sub>3</sub>)<sub>m</sub> H<sub>(1-m)</sub> --, --S(O)<sub>p</sub> --, and --O--;

X is O or S;

n is 0, 1, 2, or 3;

m is 0 or 1;

p is 0, 1, or 2;

each R is independently selected from

a) halo, formyl, cyano, amino, nitro, thiocyanato, isothiocyanato, trimethylsilyl, and hydroxy;

b) C<sub>1</sub>-C<sub>4</sub> alkyl, alkenyl, alkynyl, C<sub>3</sub>-C<sub>6</sub> cycloalkyl, and cycloalkenyl, each optionally substituted with halo, hydroxy, thio, amino, nitro, cyano, formyl, phenyl, C<sub>1</sub>-C<sub>4</sub> alkoxy, alkylcarbonyl, alkylthio, alkylamino, dialkylamino, alkoxycarbonyl, (alkylthio)carbonyl, alkylaminocarbonyl, dialkylaminocarbonyl, alkylsulfinyl, or alkylsulfonyl;

c) phenyl, furyl, thienyl, pyrrolyl, each optionally substituted with halo, formyl, cyano, amino, nitro, C<sub>1</sub>-C<sub>4</sub> alkyl, alkenyl, alkynyl, alkoxy, alkylthio, alkylamino, dialkylamino, haloalkyl, and haloalkenyl;

d) C<sub>1</sub>-C<sub>4</sub> alkoxy, alkenoxy, alkynoxy, C<sub>3</sub>-C<sub>6</sub> cycloalkyloxy, cycloalkenyloxy, alkylthio, alkylsulfinyl, alkylsulfonyl, alkylamino, dialkylamino, alkylcarbonylamino, aminocarbonyl, alkylaminocarbonyl, dialkylaminocarbonyl, alkylcarbonyl, alkylcarbonyloxy, alkoxycarbonyl, (alkylthio)carbonyl, phenylcarbonylamino, phenylamino, each optionally substituted with halo;

each R<sub>2</sub> is independently selected from alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl and phenyl, each optionally substituted with R<sub>4</sub> or halogen; and wherein, when Q is C, R<sub>2</sub> may also be selected from halo, alkoxy, alkylthio, alkylamino, and dialkylamino;

wherein two R<sub>2</sub> groups may be combined to form a cyclo group with Q which is 1-methylcyclopropyl, 1-methylcyclopentyl, or 1-methylcyclohexyl;

R<sub>3</sub> is C<sub>1</sub>-C<sub>4</sub> alkyl;

R<sub>4</sub> is C<sub>1</sub>-C<sub>4</sub> alkyl, haloalkyl, alkoxy, alkylthio, alkylamino, or dialkylamino; and

R<sub>7</sub> is C<sub>1</sub>-C<sub>4</sub> alkyl, haloalkyl, or phenyl, optionally substituted with halo, nitro, or R<sub>4</sub>; or an agronomic salt thereof.

146. (currently amended) The method according to claim 103, wherein

Z<sub>1</sub> and Z<sub>2</sub> are C or N and are part of an aromatic ring which is furan; and

A is selected from --C(X)-amine wherein the amine is substituted with a first and a second amine substituent or with an alkylaminocarbonyl and a hydrogen, --C(O)—SR<sub>3</sub>, --NH--C(X)R<sub>4</sub>, and --C(=NR<sub>3</sub>)--XR<sub>7</sub>;

the first amine substituent is selected from the group consisting of C<sub>1</sub> - C<sub>10</sub> straight or branched alkyl, alkenyl, or alkynyl groups or mixtures thereof optionally substituted with one or more halogen, hydroxy, alkoxy, alkylthio, nitrile, alkylsulfonate, haloalkylsulfonate, phenyl, a 5-membered heteroaryl, C<sub>3</sub> - C<sub>6</sub> cycloalkyl and C<sub>5</sub> - C<sub>6</sub> cycloalkylkenyl; phenyl optionally substituted with one or more C<sub>1</sub> - C<sub>4</sub> straight or branched alkyl, alkenyl, or alkynyl groups or mixtures thereof, cycloalkyl, cycloalkenyl, haloalkyl, alkoxy and nitro; C<sub>3</sub> - C<sub>6</sub> cycloalkyl, C<sub>5</sub> - C<sub>6</sub> cycloalkenyl, alkoxy, alkenoxy, alkynoxy, dialkylamino, and alkylthio;

and the second amine substituent is selected from the group consisting of hydrogen; C<sub>1</sub> - C<sub>6</sub> straight or branched alkyl, alkenyl, or alkynyl groups or mixtures

thereof optionally substituted with one or more halogen, hydroxy, alkylcarbonyl, haloalkylcarbonyl, alkoxy carbonyl, and dialkylphosphonyl;

B is  $--W_m--Q(R_2)_3$  or selected from o-tolyl, 1-naphthyl, 2-naphthyl, and 9-phenanthryl, each optionally substituted with halogen or  $R_4$ ;

Q is C, or Si, ~~Ge, or Sn~~;

W is  $--C(R_3)_p H_{(2-p)}--$ ; or when Q is C, W is selected from  $--C(R_3)_p H_{(2-p)}--$ ,  $--N(R_3)_m H_{(1-m)}--$ ,  $--S(O)_p--$ , and  $--O--$ ;

X is O or S;

n is 0, 1, or 2;

m is 0 or 1;

p is 0, 1, or 2;

each R is independently selected from

a) halo, formyl, cyano, amino, nitro, thiocyanato, isothiocyanato, trimethylsilyl, and hydroxy;

b)  $C_1$ - $C_4$  alkyl, alkenyl, alkynyl,  $C_3$ - $C_6$  cycloalkyl, and cycloalkenyl, each optionally substituted with halo, hydroxy, thio, amino, nitro, cyano, formyl, phenyl,  $C_1$ - $C_4$  alkoxy, alkylcarbonyl, alkylthio, alkylamino, dialkylamino, alkoxy carbonyl, (alkylthio)carbonyl, alkylaminocarbonyl, dialkylaminocarbonyl, alkylsulfinyl, or alkylsulfonyl;

c) phenyl, furyl, thienyl, pyrrolyl, each optionally substituted with halo, formyl, cyano, amino, nitro,  $C_1$ - $C_4$  alkyl, alkenyl, alkynyl, alkoxy, alkylthio, alkylamino, dialkylamino, haloalkyl, and haloalkenyl;

d)  $C_1$ - $C_4$  alkoxy, alkenoxy, alkynoxy,  $C_3$ - $C_6$  cycloalkyloxy, cycloalkenyloxy, alkylthio, alkylsulfinyl, alkylsulfonyl, alkylamino, dialkylamino, alkylcarbonylamino, aminocarbonyl, alkylaminocarbonyl, dialkylaminocarbonyl, alkylcarbonyl, alkylcarbonyloxy, alkoxy carbonyl, (alkylthio)carbonyl, phenylcarbonylamino, phenylamino, each optionally substituted with halo;

wherein two R groups may be combined to form a fused ring;

each  $R_2$  is independently selected from alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl and phenyl, each optionally substituted with  $R_4$  or halogen; and wherein, when Q is C,  $R_2$  may also be selected from halo, alkoxy, alkylthio, alkylamino, and dialkylamino;

wherein two  $R_2$  groups may be combined to form a cyclo group with Q which is 1-methylcyclopropyl, 1-methylcyclopentyl, or 1-methylcyclohexyl;

$R_3$  is  $C_1$ - $C_4$  alkyl;

$R_4$  is  $C_1$ - $C_4$  alkyl, haloalkyl, alkoxy, alkylthio, alkylamino, or dialkylamino; and

$R_7$  is  $C_1$ - $C_4$  alkyl, haloalkyl, or phenyl, optionally substituted with halo, nitro, or  $R_4$ ; or an agronomic salt thereof

147. (currently amended) The method according to claim 103, wherein

$Z_1$  and  $Z_2$  are C and are part of an aromatic ring which is furan; and

A is selected from --C(X)-amine wherein the amine is substituted with a first and a second amine substituent or with an alkylaminocarbonyl and a hydrogen, --C(O)— $SR_3$ , --NH--C(X) $R_4$ , and --C(=NR<sub>3</sub>)--XR<sub>7</sub>;

the first amine substituent is selected from the group consisting of  $C_1$  -  $C_{10}$  straight or branched alkyl, alkenyl, or alkynyl groups or mixtures thereof optionally substituted with one or more halogen, hydroxy, alkoxy, alkylthio, nitrile, alkylsulfonate, haloalkylsulfonate, phenyl, a 5-membered heteroaryl,  $C_3$  -  $C_6$  cycloalkyl and  $C_5$  -  $C_6$  cycloalkylkenyl; phenyl optionally substituted with one or more  $C_1$  -  $C_4$  straight or branched alkyl, alkenyl, or alkynyl groups or mixtures thereof, cycloalkyl, cycloalkenyl, haloalkyl, alkoxy and nitro;  $C_3$  -  $C_6$  cycloalkyl,  $C_5$  -  $C_6$  cycloalkenyl, alkoxy, alkenoxy, alkynoxy, dialkylamino, and alkylthio;

and the second amine substituent is selected from the group consisting of hydrogen;  $C_1$  -  $C_6$  straight or branched alkyl, alkenyl, or alkynyl groups or mixtures thereof optionally substituted with one or more halogen, hydroxy, alkylcarbonyl, haloalkylcarbonyl, alkoxy, alkenoxy, and dialkylphosphonyl;

B is --W<sub>m</sub> --Q( $R_2$ )<sub>3</sub> or selected from o-tolyl, 1-naphthyl, 2-naphthyl, and 9-phenanthryl, each optionally substituted with halogen or  $R_4$ ;

Q is C, or Si, ~~Ge, or Sn~~;

W is --C( $R_3$ )<sub>p</sub> H<sub>(2-p)</sub> --; or when Q is C, W is selected from --C( $R_3$ )<sub>p</sub> H<sub>(2-p)</sub> --, --N( $R_3$ )<sub>m</sub> H<sub>(1-m)</sub> --, --S(O)<sub>p</sub> --, and --O--;

X is O or S;

n is 0, 1, or 2;

m is 0 or 1;

p is 0, 1, or 2;

each R is independently selected from

a) halo, formyl, cyano, amino, nitro, thiocyanato, isothiocyanato, trimethylsilyl, and hydroxy;

b) C<sub>1</sub>-C<sub>4</sub> alkyl, alkenyl, alkynyl, C<sub>3</sub>-C<sub>6</sub> cycloalkyl, and cycloalkenyl, each optionally substituted with halo, hydroxy, thio, amino, nitro, cyano, formyl, phenyl, C<sub>1</sub>-C<sub>4</sub> alkoxy, alkylcarbonyl, alkylthio, alkylamino, dialkylamino, alkoxycarbonyl, (alkylthio)carbonyl, alkylaminocarbonyl, dialkylaminocarbonyl, alkylsulfinyl, or alkylsulfonyl;

c) phenyl, furyl, thienyl, pyrrolyl, each optionally substituted with halo, formyl, cyano, amino, nitro, C<sub>1</sub>-C<sub>4</sub> alkyl, alkenyl, alkynyl, alkoxy, alkylthio, alkylamino, dialkylamino, haloalkyl, and haloalkenyl;

d) C<sub>1</sub>-C<sub>4</sub> alkoxy, alkenoxy, alkynoxy, C<sub>3</sub>-C<sub>6</sub> cycloalkyloxy, cycloalkenyloxy, alkylthio, alkylsulfinyl, alkylsulfonyl, alkylamino, dialkylamino, alkylcarbonylamino, aminocarbonyl, alkylaminocarbonyl, dialkylaminocarbonyl, alkylcarbonyl, alkylcarbonyloxy, alkoxycarbonyl, (alkylthio)carbonyl, phenylcarbonylamino, phenylamino, each optionally substituted with halo;

wherein two R groups may be combined to form a fused ring;

each R<sub>2</sub> is independently selected from alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl and phenyl, each optionally substituted with R<sub>4</sub> or halogen; and wherein, when Q is C, R<sub>2</sub> may also be selected from halo, alkoxy, alkylthio, alkylamino, and dialkylamino;

wherein two R<sub>2</sub> groups may be combined to form a cyclo group with Q which is 1-methylcyclopropyl, 1-methylcyclopentyl, or 1-methylcyclohexyl;

R<sub>3</sub> is C<sub>1</sub>-C<sub>4</sub> alkyl;

R<sub>4</sub> is C<sub>1</sub>-C<sub>4</sub> alkyl, haloalkyl, alkoxy, alkylthio, alkylamino, or dialkylamino; and

R<sub>7</sub> is C<sub>1</sub>-C<sub>4</sub> alkyl, haloalkyl, or phenyl, optionally substituted with halo, nitro, or R<sub>4</sub>; or an agronomic salt thereof.

148. (currently amended) The method according to claim 103, wherein

Z<sub>1</sub> and Z<sub>2</sub> are C and are part of an aromatic ring which is furan; and

A is selected from --C(X)-amine wherein the amine is substituted with a first and a second amine substituent or with an alkylaminocarbonyl and a hydrogen, --C(O)---SR<sub>3</sub>, --NH--C(X)R<sub>4</sub>, and --C(=NR<sub>3</sub>)--XR<sub>7</sub> ;

the first amine substituent is selected from the group consisting of C<sub>1</sub> - C<sub>10</sub> straight or branched alkyl, alkenyl, or alkynyl groups or mixtures thereof optionally substituted with one or more halogen, hydroxy, alkoxy, alkylthio, nitrile, alkylsulfonate, haloalkylsulfonate, phenyl, a 5-membered heteroaryl, C<sub>3</sub> - C<sub>6</sub> cycloalkyl and C<sub>5</sub> - C<sub>6</sub> cycloalkylkenyl; phenyl optionally substituted with one or more C<sub>1</sub> - C<sub>4</sub> straight or branched alkyl, alkenyl, or alkynyl groups or mixtures thereof, cycloalkyl, cycloalkenyl, haloalkyl, alkoxy and nitro; C<sub>3</sub> - C<sub>6</sub> cycloalkyl, C<sub>5</sub> - C<sub>6</sub> cycloalkenyl, alkoxy, alkenoxy, alkynoxy, dialkylamino, and alkylthio;

and the second amine substituent is selected from the group consisting of hydrogen; C<sub>1</sub> - C<sub>6</sub> straight or branched alkyl, alkenyl, or alkynyl groups or mixtures thereof optionally substituted with one or more halogen, hydroxy, alkylcarbonyl, haloalkylcarbonyl, alkoxycarbonyl, and dialkylphosphonyl;

B is --W<sub>m</sub> --Q(R<sub>2</sub>)<sub>3</sub> or selected from o-tolyl, 1-naphthyl, 2-naphthyl, and 9-phenanthryl, each optionally substituted with halogen or R<sub>4</sub> ;

Q is C, or Si, ~~Ge~~, ~~or~~ Sn;

W is --C(R<sub>3</sub>)<sub>p</sub> H<sub>(2-p)</sub> --; or when Q is C, W is selected from --C(R<sub>3</sub>)<sub>p</sub> H<sub>(2-p)</sub> --, --N(R<sub>3</sub>)<sub>m</sub> H<sub>(1-m)</sub> --, --S(O)<sub>p</sub> --, and --O--;

X is O or S;

n is 2;

m is 0 or 1;

p is 0, 1, or 2;

wherein the two R groups are combined to form a nonheterocyclic ring fused to said furan ring which is not benzofuran when A is --C(X)--amine, B is --W<sub>m</sub>(Q)--(R<sub>2</sub>)<sub>3</sub>, and Q is C or Si, said R groups being selected from the group consisting of C<sub>1</sub> - C<sub>4</sub> alkyl, alkenyl, C<sub>3</sub> - C<sub>6</sub> cycloalkyl and cycloalkenyl, each optionally substituted with hydroxy, thio, phenyl, C<sub>1</sub> - C<sub>4</sub> alkoxy, alkylthio, alkylsulfinyl, or alkylsulfonyl; and

each R<sub>2</sub> is independently selected from alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl and phenyl, each optionally substituted with R<sub>4</sub> or halogen; and wherein,

when Q is C, R<sub>2</sub> may also be selected from halo, alkoxy, alkylthio, alkylamino, and dialkylamino; wherein further when Q is C, then two R<sub>2</sub> groups may be combined to form a cyclo group with Q;

R<sub>3</sub> is C<sub>1</sub>-C<sub>4</sub> alkyl;

R<sub>4</sub> is C<sub>1</sub>-C<sub>4</sub> alkyl, haloalkyl, alkoxy, alkylthio, alkylamino, or dialkylamino; and

R<sub>7</sub> is C<sub>1</sub>-C<sub>4</sub> alkyl, haloalkyl, or phenyl, optionally substituted with halo, nitro, or R<sub>4</sub>; or an agronomic salt thereof.

149. (cancelled)

150. (currently amended) The method according to claim 103, wherein

Z<sub>1</sub> and Z<sub>2</sub> are C and are part of an aromatic ring which is benzene; and

A is selected from the group consisting of --C(X)-amine wherein the amine is substituted with a first and a second amine substituent or with an alkylaminocarbonyl and a hydrogen; --C(O)—SR<sub>3</sub>, --NH--C(X)R<sub>4</sub>, and --C(=NR<sub>3</sub>)--XR<sub>7</sub>;

the first amine substituent is selected from the group consisting of C<sub>1</sub> - C<sub>10</sub> straight or branched alkyl, alkenyl, or alkynyl groups or mixtures thereof optionally substituted with one or more halogen, hydroxy, alkoxy, alkylthio, nitrile, alkylsulfonate, haloalkylsulfonate, phenyl, C<sub>3</sub> - C<sub>6</sub> cycloalkyl and C<sub>5</sub> - C<sub>6</sub> cycloalkylkenyl; phenyl optionally substituted with one or more C<sub>1</sub> - C<sub>4</sub> straight or branched alkyl, alkenyl, or alkynyl groups or mixtures thereof, cycloalkyl, cycloalkenyl, haloalkyl, alkoxy and nitro; C<sub>3</sub> - C<sub>6</sub> cycloalkyl, C<sub>5</sub> - C<sub>6</sub> cycloalkenyl, alkoxy, alkenoxy, alkynoxy, dialkylamino, and alkylthio;

and the second amine substituent is selected from the group consisting of hydrogen; C<sub>1</sub> - C<sub>6</sub> straight or branched alkyl, alkenyl, or alkynyl groups or mixtures thereof optionally substituted with one or more halogen, hydroxy, alkylcarbonyl, haloalkylcarbonyl, alkoxy carbonyl, and dialkylphosphonyl;

B is --W<sub>m</sub> --Q(R<sub>2</sub>)<sub>3</sub> or selected from o-tolyl, 1-naphthyl, 2-naphthyl, and 9-phenanthryl, each optionally substituted with halogen or R<sub>4</sub> ;

Q is Si, ~~Ge~~, or ~~Sn~~;

W is --C(R<sub>3</sub>)<sub>p</sub> H<sub>(2-p)</sub> --;



X is O or S;  
 n is 0, 1, 2 or 3;  
 m is 0 or 1;  
 p is 0, 1, or 2;  
 each R is independently selected from  
 a) halo, formyl, cyano, amino, nitro, thiocyanato, isothiocyanato, trimethylsilyl, and hydroxy;  
 b) C<sub>1</sub>-C<sub>4</sub> alkyl, alkenyl, alkynyl, C<sub>3</sub>-C<sub>6</sub> cycloalkyl, and cycloalkenyl, each optionally substituted with halo, hydroxy, thio, amino, nitro, cyano, formyl, phenyl, C<sub>1</sub>-C<sub>4</sub> alkoxy, alkylcarbonyl, alkylthio, alkylamino, dialkylamino, alkoxycarbonyl, (alkylthio)carbonyl, alkylaminocarbonyl, dialkylaminocarbonyl, alkylsulfinyl, or alkylsulfonyl;  
 c) phenyl, furyl, thienyl, pyrrolyl, each optionally substituted with halo, formyl, cyano, amino, nitro, C<sub>1</sub>-C<sub>4</sub> alkyl, alkenyl, alkynyl, alkoxy, alkylthio, alkylamino, dialkylamino, haloalkyl, and haloalkenyl;  
 d) C<sub>1</sub>-C<sub>4</sub> alkoxy, alkenoxy, alkynoxy, C<sub>3</sub>-C<sub>6</sub> cycloalkyloxy, cycloalkenyloxy, alkylthio, alkylsulfinyl, alkylsulfonyl, alkylamino, dialkylamino, alkylcarbonylamino, aminocarbonyl, alkylaminocarbonyl, dialkylaminocarbonyl, alkylcarbonyl, alkylcarbonyloxy, alkoxycarbonyl, (alkylthio)carbonyl, phenylcarbonylamino, phenylamino, each optionally substituted with halo;  
 each R<sub>2</sub> is independently selected from alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl and phenyl, each optionally substituted with R<sub>4</sub> or halogen;  
 R<sub>3</sub> is C<sub>1</sub>-C<sub>4</sub> alkyl;  
 R<sub>4</sub> is C<sub>1</sub>-C<sub>4</sub> alkyl, haloalkyl, alkoxy, alkylthio, alkylamino, or dialkylamino; and  
 R<sub>7</sub> is C<sub>1</sub>-C<sub>4</sub> alkyl, haloalkyl, or phenyl, optionally substituted with halo, nitro, or R<sub>4</sub>; or an agronomic salt thereof.

151 and 152. (cancelled)

153. (currently amended) The method according to claim 103, wherein the agronomic plant that is a legume is selected from the group consisting of ~~corn, cereals,~~

~~barley, rye, rice, vegetables, clovers, legumes, beans, peas[[.]] and alfalfa, sugar cane, sugar beets, tobacco, cotton, rapeseed (canola), sunflower, safflower, and sorghum.~~

154. (currently amended) The method according to claim 103, wherein the agronomic plant that is a legume is selected from the group consisting of *Pisum spp.*, *Medicago spp.*, *Arachis spp.*, *Glycine spp.*, *Vicia spp.*, *Vigna spp.*, trefoil, clovers and *Phaseolus spp.*

155. (previously presented) The method according to claim 103, wherein the agronomic plant is a soybean plant.

156. (previously presented) The method according to claim 103, wherein the treatment comprises treatment of a seed, wherein the seed is treated with an amount of the composition sufficient to include the fungicide in an amount that is within the range of about 0.1 gm/100 kg of seed to about 500 gm/100 kg of seed.

157. (previously presented) The method according to claim 156, wherein the seed is treated with an amount of the composition sufficient to include the fungicide in an amount that is within the range of about 10 gm/100 kg of seed to about 100 gm/100 kg of seed.

158. (previously presented) The method according to claim 156, wherein the seed is treated with an amount of the composition sufficient to include the fungicide in an amount that is within the range of about 20 gm/100 kg of seed to about 50 gm/100 kg of seed.